

REMARKS

The drawings are objected to for not showing the first and second bodies. A proposed corrected drawing showing said bodies ~~was already submitted in February of this year with the prior amendment.~~ The two nested bodies are shown schematically as two parallel lines. Those skilled in the art can readily appreciate the significance of these two lines as the nested bodies without further drawing modification. The objection to the drawing is traversed.

The Examiner contends that claims 1 and 2 are anticipated by Taylor USP 3,869,132. Claim 1 has been clarified to indicate that the first and second bodies are nested. They are abutting in Taylor Figure 1 to create a groove for the seal assembly. The Examiner relies on Figure 4 which shows a specific embodiment of a seal design that can be put into the annular groove and then the bolts 13 are tightened to seal a flanged joint. However, the Examiner has not mentioned that the design shown in Taylor is meant to seal with the backup rings in a fire condition. It is only in a fire situation does the elastomer seal expand to the point that the leg portions of the metallic ring will contact the opposing walls of the groove (Column 2 Lines 16-31). There is no sealing engagement of the backup rings in Taylor until there is a fire. In claim 1 the backup ring is compressed to be inserted between nested bodies. In Taylor the backup ring is not compressed to be inserted as the groove forms around it when the flanged joint is made up and its dimension is not greater than the gap in which it finds itself simply from the act of placement. It takes a fire situation after placement for the backup ring to get into sealing engagement.

Claim 19 is rejected as anticipated by Kilmoier USP 4,553,759. The language of the claim has been clarified to refer to the bottom of the groove as the first circumference and the portion of the seal adjacent said deep portion of the groove as the relevant portion of the seal where the circumference differences are looked at to create the claimed net radial force. The Kilmoier reference, referring to seal 80 in groove 86 merely states that seal 80 sticks out beyond the groove 86, as shown in Figure 3, so that the seal can make contact with the facing surface against which it needs to seal (Column 3 Lines 50-54). This has nothing to do with creation of a residual force from circumference difference in the manner claimed in claim 19.

Claim 1 is rejected as obvious with a combination of no less than 4 references. The problem with this attempted combination is that the base reference McEver USP 4,496,162 lacks the feature of the ends looping toward each other to create a gripping engagement. The Examiner makes a statement that ends 56a and 56b loop toward each other. There is no support for this conclusion in the written specification. All it says is that the legs are oriented up or down and toward the center of the ring (Column 2 Lines 52-56). They can do this while diverging from each other, as is clearly shown in Figure 2, assuming that drawings can be scaled, which is not the case. Figure 3, again assuming that drawings can be scaled which is not the case, shows the legs at best parallel when the seal is moved into position. The Examiner can find no support for the element of claim 1 that he says is in this reference relating to the looping ends. Later on the Examiner admits that this feature is not in McEver, despite the earlier contention that it is and adds Taylor to the mix for that feature. Again, where is the suggestion to combine a base design in McEver that shows diverging legs in a seal between nested bodies and substitute in

looping legs is a design of a flange gasket. The Examiner is simply redesigning McEver with a reference that he admits teaches away from what McEver shows. Taylor's seal doesn't energize the legs into sealing contact from insertion but requires a fire. McEver's legs make contact from insertion. These references do not suggest the combination the Examiner wants to make. Rather, the motivation for the combination seems to come from the claim rejected rather than from the references themselves, as it should be.

Beyond that is the sheer number of references to make the rejection and the fact that the references don't suggest the combination the Examiner is trying to make. Kilmoier loads the seal ring radially with injected material into annular space 106 while the base reference McEver pushes the ends together longitudinally.

As to claim 5, with its language clarified along the lines of claim 19, the addition of Kilmoier to the combination is of no help to the Examiner for the reasons discussed with regard to claim 19 above.

Claims 19-22 are rejected as obvious in a three patent combination involving Kilmoier. As discussed above with regard to claim 19, the Kilmoier reference has nothing to do with the residual force claimed from the circumference difference as now in the clarified language of claim 19. This combination is also traversed.

Dependent claims 26-27 have been added. The preferred hardness ranges of the body and rings are reported in the specification. These claims do not include new matter and do not raise additional issues requiring further search.

All the claims are now submitted to be in allowable condition.



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